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"PATENT"

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of Walter Weissman et al.)	Before the Examiner Not assigned
U. S. Serial No. 09/818,210)	- 100 assages a
Filed: March 27, 2001)	Group Art Unit 1764
Tuning Fuel Composition for Driving Cycle Conditions in Spark Ignition Engines)	Gloup Art Ollit 1704
Commissioner for Patents Washington, DC 20231	•	
Sir:		

SUBMISSION OF FORMAL DRAWINGS

In response to the Notice Of Incomplete Reply (Non Provisional) dated

August 15, 2001, Applicant(s) submit herewith Figures 1-12 on 12 sheets.

Paul E. Purwin Attorney for Applicant(s) Registration No. 29,203

Respectfully submitted,

Telephone No. (908) 730-3618

ExxonMobil Research and Engineering Company (formerly Exxon Research and Engineering Company) P. O. Box 900 Annandale, New Jersey 08801-0900

PEP/pmp 10/29/01

Figure

Walter Weissman, et al 19/818,210 iled: March 27, 2001 fUNING FUEL COMPOSITION FOR DRIVING CYCLE CONDITIONS IN SPARK IGNITION

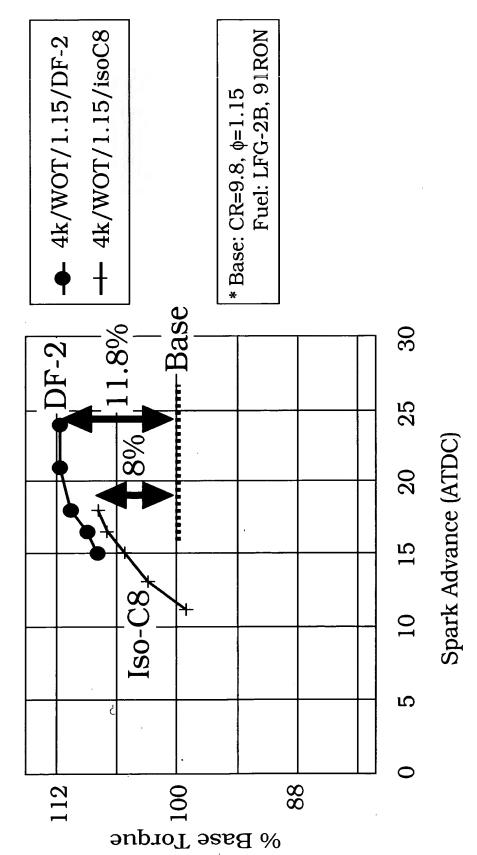
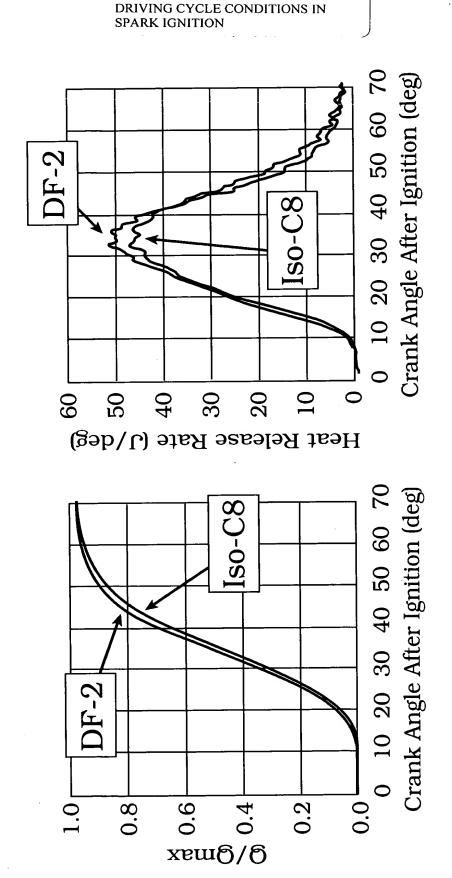


Figure 2

Walter Weissman, et al
09/818,210
Filed: March 27, 2001
TUNING FUEL COMPOSITION FOR
DRIVING CYCLE CONDITIONS IN
SPARK IGNITION

+ 4k/WOT/1.15/isoC8 - 4k/WOT/1.15/DF-2 ---Base 30 25 Spark Advance (ATDC) 15 10 $\mathbf{\Omega}$ % Base Efficiency

Figure 3



Walter Weissman, et al

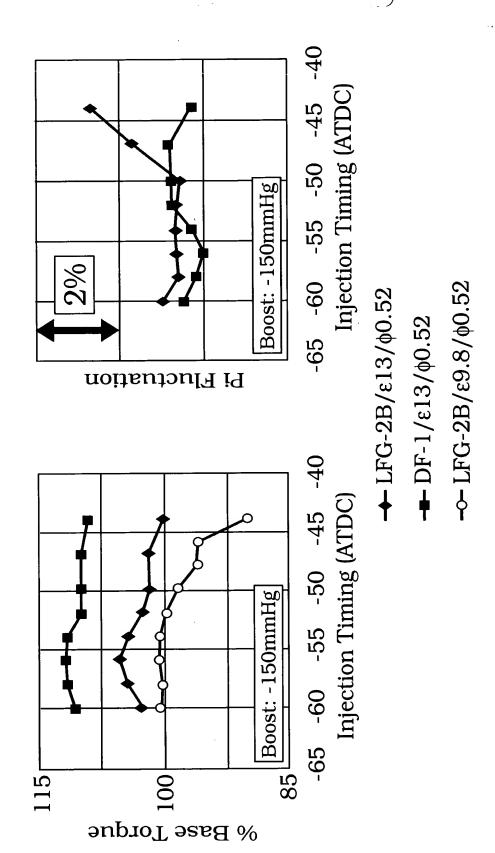
Filed: March 27, 2001

TUNING FUEL COMPOSITION FOR

09/818,210

Walter Weissman, et al 09/818,210 Filed: March 27, 2001 TUNING FUEL COMPOSITION FOR DRIVING CYCLE CONDITIONS IN SPARK IGNITION

Figure 4



-40 -45 → LFG-2B/ε13/φ0.52 → DF-1/ε13/φ0.52 → LFG-2B/ε9.8/φ0.52 Injection Timing (ATDC) -150mmHg -52 -60 Boost: Figure 5 -65 Smoke (%) -40 Boost: -150mmHg Injection Timing (ATDC) -45 -50 -55 5 (g/kWh) (g/kWh) (g/kWh) 09-വ -65

xON

co

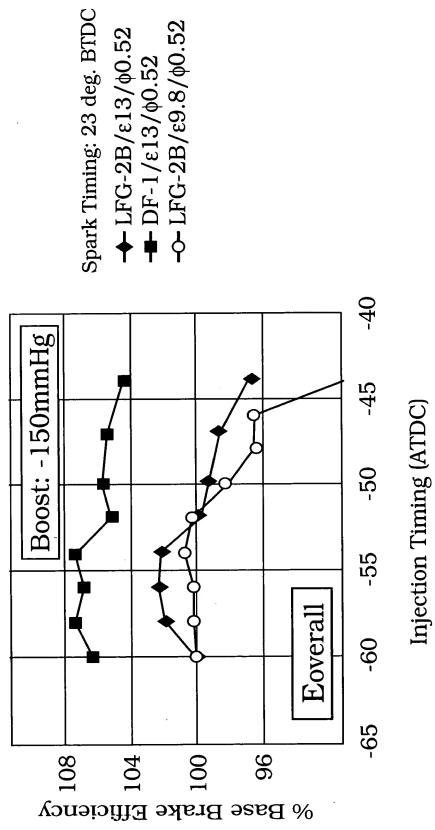
THC

Walter Weissman, et al 09/818,210

TUNING FUEL COMPOSITION FOR DRIVING CYCLE CONDITIONS IN

Filed: March 27, 2001 SPARK IGNITION

Figure 6



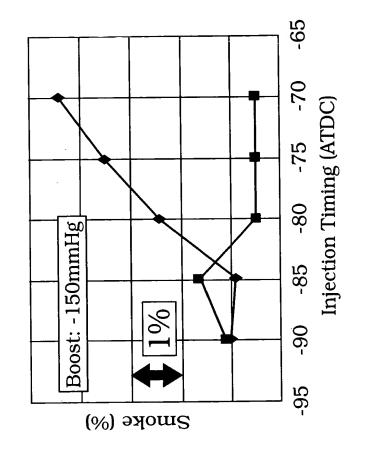
10/01-1171-06 Formal Drawings JJD-0102

Figure 7

09/818,210 Filed: March 27, 2001 TUNING FUEL COMPOSITION FOR DRIVING CYCLE CONDITIONS IN SPARK IGNITION 30 20 Crank Angle 0.2 9.0 0.4 0.8 30 20 0 10 Crank Angle 6 (gəb/t) ib/Qb

Walter Weissman, et al

Figure 8





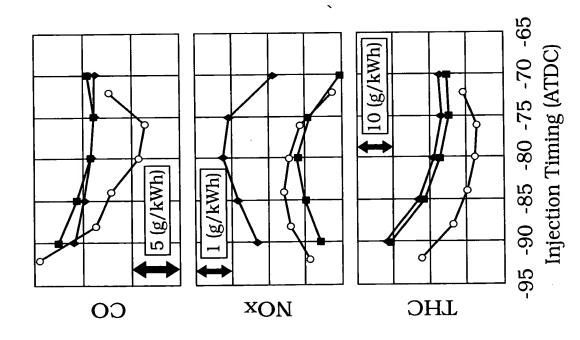
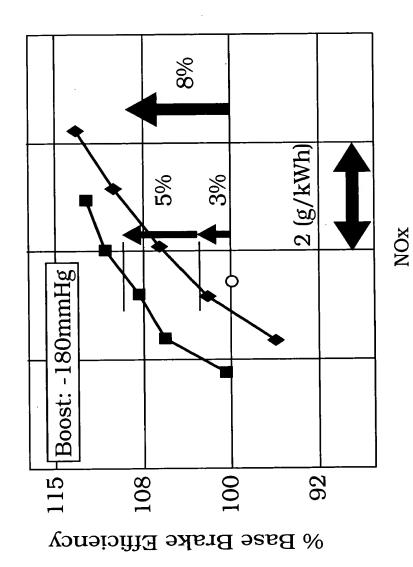
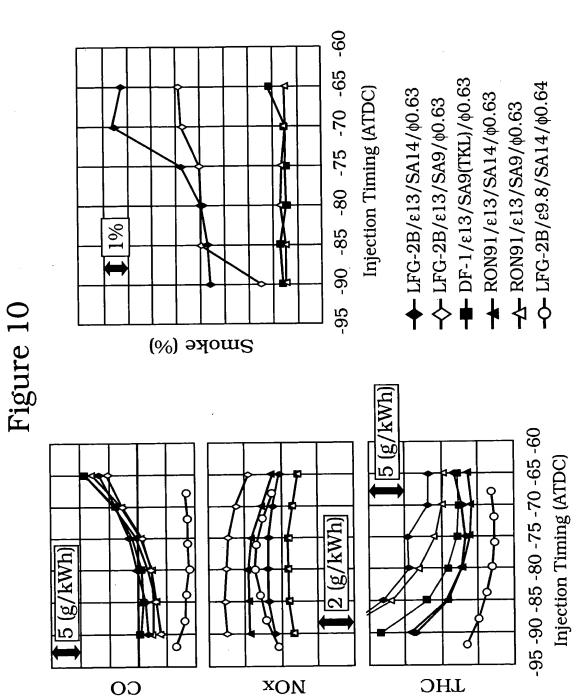


Figure 9

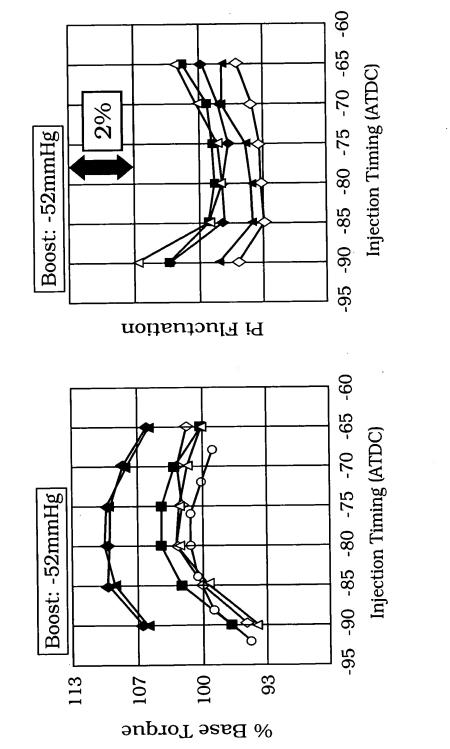


LFG-2B/ε13/Inj80/φ0.56
 DF-1/ε13/Inj80/φ0.58
 UFG-2B/ε9.8/Inj80/φ0.58



Walter Weissman, et al 09/818,210 Filed: March 27, 2001 TUNING FUEL COMPOSITION FOR DRIVING CYCLE CONDITIONS IN SPARK IGNITION

Figure 11



→ RON91/£13/SA14/ф0.63 → RON91/£13/SA9/ф0.63 → LFG-2B/£9.8/SA14/ф0.64

→ LFG-2B/ε13/SA14/φ0.63 → LFG-2B/ε13/SA9/φ0.63 → DF-1/ε13/SA9(TKL)/φ0.63

> 10/01-1171-11 Formal Drawings JJD-0102

Figure 12

